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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,709	06/12/2001	Wade Summers	SUM.101	3775
24062	7590	09/20/2004	EXAMINER	
CAMORIANO & ASSOCIATES 8225 SHELBYVILLE ROAD LOUISVILLE, KY 40222			FISCHER, JUSTIN R	
			ART UNIT	PAPER NUMBER
			1733	
DATE MAILED: 09/20/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,709

Applicant(s)

SUMMERS, WADE

Examiner

Justin R Fischer

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 and 18-21 is/are allowed.
- 6) ☒ Claim(s) 1-11, 13, 14, 17 and 22 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Pages 12-14, filed August 25, 2004 with respect to the rejection(s) of claim(s) 1-11, 13, 14, 16, and 17 under 35 U.S.C. §103 (Krum) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Schevenhoven (NL 1001652). Additionally, the rejection of claims 1-11, 13, 14, 16, 17, and 22 under 35 U.S.C. §112 has been withdrawn in light of applicant's amendment to the claims and the arguments presented in the aforementioned response.
2. Applicant is advised that should claim 1 be found allowable, claim 22 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 6, 7, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Schevenhoven. As best depicted in Figures 1-3, Schevenhoven is

directed to a wheel assembly comprising a tire and a one-piece rim, wherein a plurality of independent balls having a predetermined pressure are disposed within the hollow space defined by said tire and rim, such that the diameter of each ball spans the space from the tire edges to the tread area (Page 3 of translation). In this instance, there are no additional elements that span the space noted above and as such, the balls are the most rigid elements that span said space.

Regarding claim 2, the tire of Schevenhoven includes a valve 7 that inflates elements within the hollow space.

As to claim 6, the claim limitations are method limitations that do not further define the structure of the tire but rather relate to the method in which the balls are inflated. It is further noted that the tire structure of Schevenhoven is clearly capable of being inflated in an analogous manner to the claimed invention. In this instance, the tire of Schevenhoven has substantially the same structure as the tire of the claimed invention (e.g. they both have a plurality of inflatable balls within the tire cavity over the circumferential extent of the tire)- the degree to which the balls are inflated is directed to the method of forming the tire.

Regarding claim 7, Figure 1 depicts an inflatable tube 4 and a valve 7 that is accessible outside the rim.

With respect to claim 22, the claim is substantially the same as claim 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 4, 8-11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schevenhoven as applied in the previous paragraph and further in view of Richards (US 1,332,953, of record). In describing the plurality of balls, Schevenhoven suggests that they are brought to a predetermined pressure (inflated). However, the reference does not describe the specific inflation means and thus, the reference necessarily fails to disclose that at least one ball contains a valve assembly. In any event, one of ordinary skill in the art at the time of the invention would have found it obvious to include a valve assembly as the inflation means since this construction represents an extremely well known and extensively used means to control the pressure within a restricted region, such as a ball in tires. For example, Richards is directed to a similar tire construction having a plurality of inflated balls in which each ball contains a valve assembly to inflate the respective balls. It is noted that Richard specifically teaches that such an inflation means facilitates the tire manufacturing process (Page 1, Lines 10-25). Thus, the technique of including a valve in at least one ball assembly to inflate said balls is recognized in the tire industry and would have been well within the purview of one of ordinary skill in the art at the time of the invention for the benefits detailed above.

As to claims 8 and 10, regarding the use of polyurethane, Schevenhoven is completely silent as to the material used to form said balls. In any event, it is extremely well known in the tire industry to use a flexible or resilient material, such as rubber, to

form inflatable balls, as shown for example by Richards (Page 1, Lines 100-110). While the references fail to expressly teach the use of polyurethane, one of ordinary skill in the art at the time of the invention would have found such a material selection to be obvious since polyurethane, along with natural and synthetic rubbers, is extensively used in the tire industry to form elastic bodies or components. It is emphasized that the critical aspect or characteristic of the material used for the inflated ball is flexibility or resiliency (provided by polyurethane). Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to form the inflated balls of Schevenhoven from polyurethane.

Regarding claim 9, the claim contains multiple method limitations that do not further define the structure of the tire but rather relate to the method in which the balls are inflated. It is further noted that the tire structure of Schevenhoven is clearly capable of being inflated in an analogous manner to the claimed invention. In this instance, the tire of Schevenhoven has substantially the same structure as the tire of the claimed invention (e.g. they both have a plurality of inflatable balls within the tire cavity over the circumferential extent of the tire)- the degree to which the balls are inflated is directed to the method of forming the tire.

As to claim 10, while the claim recites the welding of polyurethane sheets, these limitations are method limitations and fail to further define the structure of the claimed invention, there being no evidence of such a method resulting in a materially different article (inflated ball).

Regarding claim 14, as previously noted, Figure 1 depicts an inflatable tube 4 and a valve 7 that is accessible outside the rim.

6. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schevenhoven and Richards as applied in paragraph 5 above and further in view of the Admitted Prior Art (Page 8, Lines 9-12). While the prior art references are silent with respect to the inclusion of a rim lock, such a component represents a standard component that presses the tire edge portions against the recesses of the rim, thereby providing a secure attachment between the tire and the rim, as shown for example by the APA (Page 8, Lines 9-12). As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a rim lock in the wheel assembly of Schevenhoven since it is desired to obtain a good attachment between the tire and the rim and a rim lock represents a well known means of obtaining this desired property. It is noted that applicant has further stated (Paper Number 4, Page 10) that rim locks are well known in the tire industry and has identified multiple catalog pages in which this component is described. Thus, it is clearly evident that one of ordinary skill in the art at the time of the invention would have readily appreciated the use of a rim lock in a plurality of tire constructions, including that described by Schevenhoven.

Allowable Subject Matter

7. Claims 15 and 18-21 are allowed. The examiner's statement of reasons for allowance has been previously set forth in the Final Rejection mailed on July 30, 2004 (Paragraph 7).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8. Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Justin Fischer

September 17, 2004


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